

IN THE SPECIFICATION:

Please replace paragraphs [0001] through [0007] with the following paragraphs and headings:

BACKGROUND

[0001] The present invention is related to an improved device for biomechanical stimulation of muscles.

[0002] ~~The biomechanical muscle stimulation (BMS) was developed in Russia at the end of the 1970 by Prof. Nazarov and primarily applied in the field of competitive sport circa 1970 by Professor Vladimir Nararov for conditioning Soviet athletes.~~ The BMS relies on an exclusively mechanical action directly applied to ~~onto the~~ human muscles ~~body~~ by means of vibration having respectively a specific frequency and a specific amplitude which are selected in accordance with the desired application. This is in contrast to typical whole body vibration (WBV) wherein a human stands upon a vibrating surface and vibration forces are transmitted to the muscles and tendons by way of bones and joints. The vibrations, which resemble and imitate the natural vibrations of the body, ~~and imitate the same are acting~~ act upon the strained or expanded muscles along the muscle ~~fibres~~ fiber. By purposively influencing the vibrational parameters of the body, ~~in the BMS thus~~ generates positive effects on e.g. the blood circulation and ~~circular or the lymphatic systems are generated.~~

[0003] For example, due to the improved movements of the muscles caused by the BMS, a significantly increased blood circulation of the muscle respectively of the concerned body part occurs. This can be used for the treatment of diseases such as disturbances of the peripheral blood circulation.

[0004] On the other hand, with the aid of the BMS, one can also specifically evoke a build-up of muscles which can be exploited in the area of sport, but also in the health area--for example for the build-up of muscles in the course of recovery treatments.

[0005] Moreover, the BMS can be used in the cosmetic area e.g. against the generation of wrinkles or cellulites.

[0006] In the prior art there have already been described devices for carrying out the BMS, e.g. in DE-A-199 44 456, DE-U-201 16 277 or in DE-U-202 19 435. Therein, the BMS is carried out using randomly generated vibrations in more or less linear (vertical) direction. A lift is generated which has an adverse influence on the user. Moreover, those devices are thus construed that only a limited number of body parts, e.g. only the leg or arm region, can be treated with the BMS.

SUMMARY

[0007] It ~~was~~ is the object of the present invention to provide a device for ~~an~~ improved biomechanical stimulation.

Please replace paragraph [0009] with the following paragraph:

[0009] It has been ~~surprisingly~~ found that the BMS can be advantageously carried out if the stimulation is generated by a uniform circular or elliptical movement. In contrast to the devices of the prior art, with the device according to the present invention thus not only a force-~~vertical~~ perpendicular to the platform is exerted but also a traction force substantially parallel to the platform. This leads to a significantly improved biomechanical stimulation of the body part which is present in the platform.

Please insert the following paragraphs and headings after paragraph [0010] and renumber subsequent paragraphs accordingly:

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] Objects and advantages together with the operation of the invention may be better understood by reference to the following detailed description taken in connection with the following illustrations, wherein:

[0012] FIG. 1 illustrates movement of the device described herein.

[0013] FIG.2 illustrates an embodiment of the device described herein.

Please replace paragraph [0011] with the following paragraph and heading:

DETAILED DESCRIPTION

~~[0014]~~[0014] The device according to the present invention, as shown in FIG. 2, comprises a base plate allowing a stable provision of said device on a flat surface. According to the invention, additional weights may be preferably provided on said base plate in order to improve the stability by fixing said base plate in particular when using said device with high frequencies.

Please replace paragraph [0017] with the following paragraph:

~~[0017]~~~~[0020]~~ According to the present invention it is particularly preferred that the platform has an ergonomic form and a lower surface area than the surface of the base plate. This enables the user to stand on the base plate, which improves the stability of the device during usage, and to simultaneously use the device by applying body part, e.g. a leg or an arm, onto the platform. Because of its ergonomic form, the platform is thereby accessible from each direction.

According to the present invention it is preferred that the surface area of the platform is 30 to 70% of the surface area of the base plate. Upper and lower limits are due to the fact that on the one hand the platform has to possess a certain surface area for being usable, and on the other the advantages herein described cannot be ~~realised~~ realized anymore in case that the platform has a too large surface area, since in that case the user cannot stand any longer on the base plate during usage.

Please replace paragraph [0020] with the following paragraph:

[~~0020~~0023] During usage, the platform executes a uniform circular or elliptical movement. In contrast to the devices of the prior art, which exercise a random movement, in the case of the device of the present invention the movement is forced and absolutely uniform. It has been found that in that way the biomechanical muscle stimulation may be carried out in a much more efficient way than in a case where ~~the~~ BMS is carried out by random and therefore non-uniform movements. In contrast to the devices of the prior art, in the case of the device of the present invention not only a force vertical to the platform is executed but also a traction force substantially parallel to the platform. Thus, the present device provides a force in a first dimension perpendicular to the platform and a force in a second dimension parallel to the platform, restricting motion of the platform to these two dimensions. The parallel force and perpendicular force provide movement of the platform within a two-dimensional plane that is perpendicular to the base. This rigid body motion results in a significantly improved biomechanical stimulation of the body part being located on the platform.

Please replace paragraph [0017] with the following paragraph:

[00240027] The circular or elliptical movement of the platform can be generated by common driving units which are known ~~to the skilled man~~ in the art. According to the present invention it is preferred that the movement be generated by an eccentric drive. The eccentric drive is well known ~~to the skilled man~~ in the art and does therefore not have to be explained in detail here. According to the present invention, the shaft of an eccentric drive is connected to the platform via conventional units such as bars, castors, bearings, belts or gear wheels.